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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,116	09/10/2004	Masafumi Fukuzumi	743421-79	4195

22204 7590 10/03/2006

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EXAMINER

SHEEHAN, JOHN P

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 10/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/507,116

Applicant(s)

FUKUZUMI ET AL.

Examiner

John P. Sheehan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 9/10/04.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

2. The disclosure is objected to because of the following informalities:
  - I. Page 13, line 13 of the specification is objected to in that it appears that "Cr" should be C.Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1 to 5 and 8 to 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
  - I. Claim 1, line 3, recites that, "Q is boron and/or carbon" (emphasis added by the Examiner). In view of the term "and/or", claim 1 encompasses the embodiment wherein Q is only boron with no C, that is, C is optional in the main phase. However, on

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the other hand, in lines 6 and 7, C is recited as one of the "essential elements" of the main. Thus, line 3 recites that C is optional in the main phase while lines 6 and 7 recite that C is essential in the main phase. In view of this, claim 1 and dependent claims 2 to 5 are inconsistent as to whether or not the main phase must contain C.

II. In like manner, in claims 8, line 4, C is claimed as optional in the main phase, while in lines 7 and 8 C is claimed as essential in the main phase. In view of this, claim 8 and dependent claims 9 to 13 are inconsistent as to whether or not the main phase must contain C.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 to 5 and 8 to 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Ueda et al. (Ueda, Japanese Patent Document No. 04-268051 cited in the IDS submitted September 10, 2004).

Applicants discuss Ueda at page 6, line 7 to page 7, line 6 of the instant specification in the specification. Ueda teaches a method of making a rare earth-Fe-Co-B-C sintered magnet (Abstract). Applicants disclose that Ueda teaches adding Cr to the main phase of a rare earth sintered and C to the boundary layer phase of the sintered rare earth magnet (see instant specification, page 6, lines 9 and 10 and page 6,

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lines 18 and 19). Thus, teaches a main phase containing Cr as recited in the instant claims and a grain boundary phase containing C as recited in the instant claims.

In view of the 112 rejection set forth above, C is not required in the main phase alloy, therefore claims 1 to 5 and 8 to 13 are anticipated by Ueda.

7. Claims 1 to 5 and 8 to 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Takebuchi et al. (Takebuchi, US Patent No. 5,595,608, cited in the IDS submitted September 10, 2004).

Takebuchi teaches a method of making a sintered rare earth-iron-boron magnet having a composition that overlaps the claimed permanent magnet composition (column 14, lines 36 to 55) wherein a main phase rare earth alloy (column 8, lines 9 to 15) optionally containing Cr and C (column 8, lines 40 to 46) having a composition that overlaps the main phase alloy composition recited in the instant claims and a grain boundary phase having a composition that overlaps the composition of the grain boundary phase recited in the instant claims (column 10, lines 35 to 40) are mixed and sintered (column 20, line 50 to column 21, line 8). Takebuchi is considered to teach the invention recited in claims 1 to 5 and 8 to 13.

***Claim Rejections - 35 USC § 102/103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 6 and 7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ueda et al. (Ueda, Japanese Patent Document No. 04-268051 cited in the IDS submitted September 10, 2004).

Ueda teaches as set forth above.

Ueda is silent as natural electrode potential of the disclosed composition.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the composition taught by Ueda has a composition that is encompassed by the instant. In view of this, the composition taught by Ueda would be expected to possess all the same properties as recited in the instant claims, In re Best, 195 USPQ, 430 and MPEP 2112.01.

"Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established, In re Best, 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.' In re Spada, 15 USPQ2d 655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. In re Best, 195 USPQ 430, 433 (CCPA 1977)." see MPEP 2112.01.

10. Claims 6 and 7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ueda et al. (Takebuchi, US Patent No. 5,595,608, cited in the IDS submitted September 10, 2004).

Takebuchi teaches as set forth above.

Takebuchi is silent as natural electrode potential of the disclosed composition.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the composition taught by Takebuchi has a composition that is encompassed by the instant. In view of this, the composition taught by Takebuchi would be expected to possess all the same properties as recited in the instant claims, *In re Best*, 195 USPQ, 430 and MPEP 2112.01.

"Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established, *In re Best*, 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.' *In re Spada*, 15 USPQ2d 655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. *In re Best*, 195 USPQ 430, 433 (CCPA 1977)." see MPEP 2112.01.


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (571) 272-1249. The examiner can normally be reached on T-F (6:45-4:30) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
John P. Sheehan  
Primary Examiner  
Art Unit 1742

jps